

**=== BEGIN Comment to FCC Proceeding 04-104 ===**

**Thank you for permitting me the opportunity to comment on this petition.**

**I am STRONGLY OPPOSED to the proposal noted in FCC Proceeding number 03-104 – that to authorize the technology known as “Broadband over Power Line” (BPL). I request that the Commission deny or withhold authorization for the petitioner’s proposed use.**

**I have had extensive experience in the design, implementation, maintenance, use, and the underlying technologies of both civilian and military radio communications systems and their attendant facilities. Everything about the technology indicates that BPL may very well destroy the usefulness of many existing civilian, military, and amateur radio services.**

**No 'new technology', no matter how promising or how financially beneficial to its operators, can violate the laws of physics. Using the power lines to carry what is effectively information streams at HF and VHF (and higher) frequencies will very likely result in the lines themselves being significant radiators of those signals - acting just like a transmitting antenna. This is the very same principle that allows 'open line' (also commonly known as 'ladder line' or 'balanced line' transmission / feed lines) to radiate when used in a broadcast antenna system. The very common 'open line' feed lines have been mostly supplanted in commercial and amateur use by shielded coaxial cable (coax). Shielded coax lines became more economically useful and available after WWII when coax became available at reasonable prices. Coax became popular precisely to eliminate the RF radiated from the lines themselves before it reached the antenna elements. Power lines are, electrically, nothing more than horizontally installed 'open feedlines' to a signal of almost any type. These power lines already radiate noticeably at the 60HZ they run at now and can cause severe interference in any part of their infrastructure that is in need of maintenance. Pole-mounted transformers, switches & cutouts, and even dirty insulators have all been frequently found to be the culprits in RF interference issues at and well above their 60HZ design frequencies. These are the very same spectrum of frequencies (3-80MHZ) that BPL proponents are seeking authorization to use.**

**Much of the available materials I found have all lead me to the conclusion that BPL is VERY LIKELY to create a tremendous amount of interference to existing authorized and licensed radio communications services. It should be the responsibility of BPL's proponents to conclusively prove that it will in no way interfere with exiting services.**

**The American Radio Relay League has, on behalf of its 600,000+ members, already completed a comprehensive study of the possible effects of BPL on existing communications services. Those tests, the results, and supporting documents, all appear to have been done in a fair, accurate, and scientific way. They have already been submitted to the FCC as a comment to this same proceeding.**

**It's also my understand that Japan, a country that usually fosters and supports any new technologies, has already nixed the technology due to the propensity of it to cause broadband interference across its entire proposed bandwidth.**

**Until such time as the petitioners can conclusively prove that there will be no or negligible negative effects on existing radio communications services, I feel it's the Commission's responsibility and duty to withhold authorization for the use of BPL technology. Otherwise, it would become politically and economically impossible to suspend its use once authorized and implemented. This is an area where the interests of the existing licensed users should definitely outweigh those of the proponents of BPL.**

**Again, I am STRONGLY OPPOSED to the petitioner's proposal and request that the Commission withholds or denies authorization for its use.**

**Thank you for this opportunity to comment on this proposal.**

**Respectfully submitted on 11 AUG 2003,**

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**===END COMMENT TO FCC Proceeding 03-104 ===**